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TRACT

A four-stage model (goal setting, program planning, program implementation, program evaluation) for achieving diversity in the means and ends of education is suggested. Its major thrust is more educational programming at the local school level. (MS)

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A MODEL FOR PROGRAM DEVELOPMENT AND EVALUATION
AT THE LOCAL SCHOOL LEVEL

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Introduction

The center of gravity of educational practice has not changed much in spite of numerous efforts, considerable money, research and development, and modern technology. Make no mistake, a majority of the public seek no significant changes in education. But large numbers do desire educational reform, mainly the youth themselves, minority groups and people whose values may differ from prevailing norms.

If we are to be more responsive to a wider range of clientele needs and expectations, school systems must assume a posture of more flexibility in what goals are pursued and how they are attained. Mass production through standardization built our industrial society but this model is no longer appropriate in education for large numbers of people.

This paper makes no attempt to advocate any innovative educational program as a solution to the need for diversity and pluralism. Instead, a model is suggested as a way of achieving diversity in the means and ends of education as diversity is needed and desired by our educational clientele. The fundamental thrust of the model is for more educational programming to be initiated at the local school level. This concept does not preclude centralized programming, but recognizes it as a supplement to program development by and for the local school.

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Responsibilities for program development at the local school level often raises the related issues of centralization versus decentralization and that of delegated authority. Any extreme position on these issues does not face up to reality. The fact is that centralized services can and should be brought to bear on local school program development.* Such services should be viewed as another set of resources from which local schools can draw support. As for delegated authority, no school can operate as island unto itself. Certain authority must rest, by law, if for no other reason, with central administrative heads and the Board of Education. There are, however, very cogent reasons why more decentralization and delegated authority are needed for program development at the local school level. There are three concurrent trends which form a rationale for this position.

First is the trend toward diversity of educational values, needs, and expectations by students, parents and teachers. Both the profession and its clientele are seeking and often demanding alternatives in both the means and ends of education.

Second is the trend for parents and community groups to exercise more power and influence over the educational process. In several instances of federal aid to education legislation, such power is delegated by law. The need of all human beings for uniqueness as an individual rebels against the vastness of urban school systems and each

* This is especially true where program funding lies outside the agency as, for example, with Title III, ESEA projects.

wants to break it down to controllable size. This expression of community concern needs to be seen as a positive force; then it can lead to commitment and support of public education.

The third trend is toward more accountability by educators to the public. In hard times, demand for accountability increases concurrent with an erosion of public trust and faith in the educational system. Increasingly, the demand is for hard data presented publicly.

As these three forces intertwine they lead inevitably toward greater decentralization and delegation of authority for program development to the local school. It is inevitable because standardization is antithetical to diversity. It is inevitable because there are many community voices, each raising somewhat different concerns. It is inevitable because local school administrators and their staffs cannot respond to their school's community educational needs and expectations without commensurate authority, nor can they logically be held accountable for programs over which they have little or no control.

No one will argue that ideally decisions should be made at the level at which responsibility (accountability) rests. The question is, who has the responsibility? This question is complex. It is oversimplified to say it's either "local school" or "central office" responsibility. The fact is that many decisions must be made, some of which are best made by various personnel in local schools and communities and some of which are best made by various personnel in the central administration. The mere knowledge of who does what will help alleviate often

artificial antagonisms and promote mutual understanding and effort toward common goals. High trust levels must exist in any team effort if those involved are to be satisfied and share common goals. The process of decentralizing educational programming to the local school level is not ideal but is potentially practical. Ideally, the unit of programming should be the child not the school but this is not practical at present. Increasing the scope of decisions at the local school, however, does increase the potential for individualization at the pupil level.

Based on these thoughts, there is a conviction that program development must be a partnership between the local school staff and its community and the central administration with its specialized resources. The model to be proposed represents a stronger leaning toward local school authority and initiative than has been the case traditionally in the Cincinnati Public Schools. The model, however, is believed to be responsive to and a synthesis of, many recommendations made by major studies of our school system over the past three years. Numerous recommendations made in these studies led to the design of this model.

It should be established at the outset that by advocating local school programming we are not suggesting that each school should start programming from scratch. Most educational programs will continue to be what is now represented as the standard curriculum, and efforts to improve it must continue. The focus of this model is on change in educational programs in terms of goals sought or methods used to achieve them.

Definitions and Scope

Definitions. A program is defined as a set of planned inter-related activities designed to achieve a specified goal(s) and which requires time and other resources for implementation. Program Development is defined as the process of assessing needs and developing goals; delineating and selecting alternative means to goal attainment; implementing and monitoring the best solution strategy; and comparing intended with actual goal achievement. Evaluation is defined as the process of delineating, obtaining and providing relevant information to decision makers to service the decision needs inherent in program development. Evaluation is the servant of development.

The intertwine of program development (feedforward activity) and evaluation (feedback activity) is complementary, cyclical, and self-improving.

Scope. This model for program development and evaluation is targeted at the local school level although the major concepts can be applied for systemwide development and evaluation. The model describes a set of activities that represent planned change, targeted on priority goals. It does not involve the mass of present school activity that may be thought of as the on-going curriculum. The model provides for incremental changes needed to meet high priority goals as determined at the local school level. The model is appropriate for intended significant changes in present programs or the development of new programs. Mere additions or cutbacks in a present program does not

constitute program development, although these may occur. A program may be considered new if it addresses itself to goals previously unsought or when different approaches to established goals are used.

Goal setting should be a continuous process even if no visible or immediate resources are available to implement the plan. (Actually, the discovery of opportunities and resources available to a local school are subject to study in the goal setting stage.) One never knows when resources for implementation might become available.

Naturally, program planning is likely to be more vigorous when there are known resources (such as school allocations under Title I) for implementation. It should be noted that program development can occur with re-allocation of existing resources as well as with additional resources. Also, some programs are possible with resources made available outside the school system such as those contributed by a community.

Finally, something should be said for the relation between program development and curriculum development. Curriculum development is seen as a subset of activities in program development when the program deals directly with student performance especially in academic subject areas.

Overview of Local School Program Development and Evaluation (ISPDE) Model

This model operationally defines program development as consisting of four dynamic (interactive) stages: Goal Setting; Planning; Implementation; and (summative) Evaluation. Each stage is characterized by somewhat different sets of people carrying the baton toward a desired state

of affairs. Each stage has a mechanism for carrying out activities for which it is responsible, i.e., each has certain feedforward (development) and feedback (evaluation) characteristics.

Briefly, the mechanism for goal setting is a School-Community Association, chaired by a community representative. Planning is done by an ad hoc Program Committee headed by a planning specialist. Implementation is the job done by an Administrative Team headed by the principal or his delegate. The leadership of these three stages are local school or community based personnel. Summative evaluation is conducted by an evaluation specialist who serves several schools and is centrally based. This evaluator also services the information needs of the first three stages at least in a technical advisory capacity.

The leaders of these four stages, i.e., the chairman of the SCA, the planning specialist, the administrator, and the evaluation specialist, comprise the school's Educational Change Team. This team is headed by the school principal or his delegate who is responsible for articulation and communication across the various stages. How this team functions depends on the leadership style of the principal and the resources that he has available.

Before getting into a more detailed account of each stage of the model, it is apparent that the four stages appear to be rational and linear, i.e., each stage seems to logically follow the prior stage while stage four leads (cycles) back to stage one. Program development in reality is not always rational and linear. For example, programs

are often selected for use and then the goals to which it is addressed are clarified. The linear succession of the four stages may be ideal in its rationality but must not be seen as essential for the use of the model. More will be said about this later.

The Four Stages of the Model

Stage I: Goal Setting. The need for change normally begins with a felt need; a problem situation. If this model has a "logical" beginning, it is that of needs assessment which eventually leads to priority goals. The process of identifying priority goals begins with a listing of felt or perceived needs. Perceived needs are then subjected to two consecutive tests. First, is the expressed need the responsibility of the school? Second, is the expressed need authentic? The question of whether a need is the school's responsibility is largely a matter of Board of Education policy in terms of the range of services it provides either by choice or law. The question of whether a need is authentic depends on the discrepancy between what is and what should be. Assuming both conditions prevail, needs are then translated to goals and finally these goals are subjected to priority listing.

Goal setting is a uniquely local school activity tempered only by possible constraints of Board policy. It recognizes that individual school-community needs, values and expectations may vary from one school to the next. This concept does not exclude the idea that there are some number of common goals or common programs that cut across all schools.

Nor does it necessarily mean that all schools will want or need to change in either the means or ends (goals) of education. Some schools may view their current programs as quite adequate save, perhaps, for strengthening what they are already doing. Even when schools do not opt for any program change, the important issue is that they have a choice.

The mechanism for goal setting is a structure called a School-Community Association (SCA). SCA's are now being modeled in a federal Title III grant* operating in one high school district of the city and including 14 schools. The staff of this project is currently constructing a document entitled, "Handbook for School-Community Associations." The purpose, composition, procedures and products of SCA's will be explicated in this document.

Suffice it to say that the SCA will consist of school personnel, parents, students and significant local community leadership to make a representative body and a legitimizing force for the identification and pursuit of goals. While SCA's are chaired by community persons, the school principal's role is to provide dynamic and inspired leadership and to serve as a facilitator in his role as head of the Educational Change Team.

The role of the evaluator in Stage I is to obtain and provide needed information, especially that delineated by the SCA, of the school-community context. Some of the information needs can be met through the Cincinnati Public Schools Information System.** One of the intended

* The project is officially titled, "School Community Evaluation and Development System (SCEDS).

** This information system is being developed in a grant under Title III, ESEA, entitled "School Management and Evaluation System," often referred to as School Information System (SIS).

products of the information system is a school profile which will identify certain school inputs and outputs. The quantification of a number of school and community characteristics in this profile will be enlightening to local SCA's in their task of needs assessment and goal development. Since goal setting is highly value oriented, effective means of determining and sharing these values of school-community members are needed with the hope that some degree of consensus may be achieved on priority goals. SCA's may use a variety of techniques such as surveys, open hearings, task forces, study of agency and other reports, and expert testimony.

The most difficult part of Stage I is not identifying appropriate goals but of placing them in some priority order which can help direct resource allocation. Prioritizing goals requires a set of criteria which might include urgency, ease of attainment, probability of success, anticipated costs and relation to other goals. Even when goals can be placed in priority, this does not necessarily mean all new resources should be directed to the top priority goal with negligence to the others. The problem of what resources are available and how they are to be allocated to attain goals must be addressed.

The central administration also plays a role in legitimizing goals. The line officers to whom principals report, for example, may help clarify Board policies when these are in doubt.

Seeking priority goals also involves the identification of opportunities and resources that might be brought to bear on problems. A delineation of the target group to be served, e.g., reading skills

among primary grade children or recreational facilities for the handicapped, is also a product of the goal setting stage.

It is extremely important to recognize the need for training of persons in leadership roles in Stage I.* Without proper training, Stage I may not lead to priority goals but may in fact lead to great frustration and a feeling of not getting anywhere. The key people that need training are the principals, the chairmen of SCA's, the evaluators, and community aides (if employed).

Normally, goal setting should start with the beginning of the school year with priority goals identified sometime during January or February. This leaves a few months for planning of school based programs to be implemented the following year. Some goals and programs, however, need not necessarily follow this schedule.

Caution should be exercised in trying to pursue more goals than can be attained realistically. This is the reason for focusing on priority goals. Trying to spread resources too thin or engaging the same staff in too many activities often guarantees failure.

In order to understand the needs of students and set priority goals, considerable time, resources, and information is required. To repeat this process each year may not be necessary for many schools. We estimate a comprehensive job should be done every three years but some schools may require a revaluation of goals each year or two.

* A training program for needs assessment and goal development is now being negotiated for development under a grant from the National Center for Educational Research and Development, U. S. Office of Education.

Stage II: Program Planning. Given a high priority goal(s) emerging from Stage I, the next set of tasks deals mainly with identifying and evaluating alternative solutions to goal attainment and planning the execution of the most promising solution. The responsibility of planning is that of a school based program planning specialist along with an ad hoc Program Committee. Both the planning specialist (who has a degree of permanence in this capacity) and the ad hoc committee are selected by the principal with advisory assistance from the SCA, central office or others. The composition of the ad hoc committee will depend on the nature of the goal pursued and human and other resources available. Extensive involvement of the teaching staff and students, however, usually will be essential for success. Central office specialists may play a prominent role as consultants to these Program Committees.

The Program Committee should be headed by a planning specialist, not necessarily a subject area specialist. Planning skills needed by the specialist transcend subject matter and include budgeting, literature review, PERT and other management techniques, resource identification and allocation, goal reduction, and numerous human relations skills. Persons with these skills normally are not found on school staffs. They need to be trained. They could be assistant principals, a member of the teaching staff or some other staff member. They might also be itinerant and serve several schools if the latter wish to pool resources.

These persons might also serve as project coordinators in the implementation stage. Personnel needed to perform this and other functions is a highly flexible affair depending on a school's resources.

Perhaps the first task of the Program Committee is to define and redefine (reduce) stated goals into smaller units of anticipated student performance. Thus, goals become operationalized and less subject to vagueness. After goals are connected to objectives they are recycled to the SCA as a check on their validity with respect to the goal.

If high fidelity exists, the next job is studying or developing alternative solutions (programs) to achieving the objectives. Each alternative should be evaluated based on criteria set by the Program Committee and sanctioned by the Educational Change Team. Information for each program alternative needs to be collected. Needed information may be obtained from visits to sites where a program is being used, by review of research and other literature and statements from authorities including Central Office specialists.

Without established criteria, rational program selection and planning cannot occur. Examples of criteria for program selection are: correspondence of program objectives with those established in the goal setting stage; projected cost and effectiveness; time requirements; feasibility, etc. Existent programs designed to meet specified objectives should be studied first to save resources and "reinventing the wheel".

It should be borne in mind that the development of new programs is time consuming and costly. Most goals dealing with conventional academic skills development probably should be pursued by selecting already packaged programs on the commercial market. If none meet the specified criteria, a new program will have to be developed.

The criteria applied in program selection will reflect school and community resources available, as well as constraints. Defining the school-community's capabilities will thus dictate the nature of the program's design. When the program has been selected or developed, a plan for implementation must be devised. The plan must spell out all the resources needed to implement the program along with the relationships among these resources. The plan must include, for example, a description of the program strategy itself and the goal and objectives it intends to achieve, the nature of the target population, budget, personnel requirements, job descriptions and relationships, training needs, facilities, equipment, intended funding source, and critical target dates.

The program plan must also include an evaluation design constructed by the evaluation specialist. The evaluator must establish criteria for evaluating achievement of goals and objectives. These criteria must be accepted as valid indicators of program success by the Program Committee and the SCA.

As program planning occurs numerous issues may arise which require interpretation of Board or administrative policies and procedures.

Such issues should be directed to the line officer to whom the principal reports. When these issues are brought to light early, the result is less wasted effort and less frustration. One of the most common issues will be that of local school authority to re-allocate school resources. For example, can a school trade off a supply budget for a part time teacher or a teacher for four teacher aides, etc.? These are problems that are addressed to the line officer for information. Some of these issues may require new policies to be formed, while others may be resolved within existing policies.

The procedures to be followed in influencing Board of Education policies and administrative regulations must be well known by local school administrators and the SCA's.* Without this knowledge, attempts at program development in local schools may reach an impasse.

Normally, planning will occur during the winter months for implementation the following school year. Usually program plans need clearance by early spring in order to meet budget deadlines.

Program Review. When the program plan is completed, it should be sanctioned by the Educational Change Team and signed off by the principal who sends it to his line officer. The latter's responsibility is to study the plan and identify any problems or constraints inherent in its implementation and help remove obstacles. The line officer checks the plan for budget, possible violations of Board or administrative policies, availability of needed resources, possible ways of sharing

* In the SCEDS project footnoted earlier, a structure called the "Council of School-Community Associations" will have a major role in interfacing with the Board of Education. The Council of SCA's has representation from each SCA in the high school district.

resources across schools, and identifying persons who can be of help in implementation. It is the line officer's responsibility to respond to the program plan and make whatever clearances are necessary. He may accept, reject or request modification of the plan. Outright rejection will seldom occur if the school principal has a thorough knowledge of policies and regulations, or at least has checked on issues before submitting the program plan. If the line officer approves the plan, it receives his sign off and is returned to the school for implementation according to plan.

If the plan is disapproved, a written communication to the principal, giving reasons for rejection and suggestions for further action, should be made. If the Educational Change Team accepts the reasons, they may devise a new plan or postpone further action. The ECT is responsible for informing the staff and SCA of actions taken by the line officer so they are not left in the dark.

If the ECT does not accept the judgment of the line officer, an appeal procedure should be executed. The appeals process must involve a person(s) other than the original line officer. The nature of the appeals process should be worked out by the Superintendent's cabinet.

Stage III: Implementation. Given clearance by the line officer the plan is implemented by the principal who assumes or delegates authority to his Administrative Team. The administrative team may include an assistant principal(s), the planning specialist, or some other member of the school staff, such as a department head, that is

given delegated authority by the principal. The most important point is that one person should be clearly designated as being responsible for executing the program plan. This person may be called the program coordinator.* The plan becomes that person's credentials. The way the program is implemented will depend on administrative style and resources available. Indeed, these features should be spelled out in the plan itself.

The implementation stage may be viewed as consisting of two parts. First, is the management and operation of the plan. Second, is interim assessment of progress toward goals and objectives. Management and operation of the plan basically involves doing those things required in the plan, e.g., requisitioning personnel and equipment, locating space, assigning and training personnel, obtaining necessary clearances, etc. As these tasks are accomplished or not, as the case may be, the result is compared with the plan to note any discrepancies. No program plan can anticipate all the realities of field conditions, therefore some modification of the plan will always be necessary. This is the job of the program coordinator. For example, a piece of equipment may not have arrived on time. What to do until the equipment arrives is the problem of the program coordinator. The program coordinator finds out the reasons for discrepancies between plan and operation and takes necessary corrective action if he judges the effects of these discrepancies to be harmful to the project's goals. A careful log of project activities is important for future reference and recycling of the program. A good

* Program coordinators now exist in schools receiving Title I and/or DPPP program funds.

log may well prevent the same mistakes from being made twice and helps others who may wish to implement the program in other settings.

While the program coordinator is managing the project, the evaluation specialist is executing his evaluation design which calls for interim measures of goal attainment. Interim measurements are needed to avoid the possibility that a program operate full cycle before it is realized that it is ineffective. Interim data is targeted to the program coordinator who may use such information to take corrective action. Similarly, interim reports should be sent to the Program Committee and SCA for their information and possible recycling action. In other words, if a program is not achieving an increment toward its goals, the SCA may wish to change goals or the Program Committee may use a new program strategy. Such issues are discussed by the ECT and reported to all concerned for possible action.

In addition to obtaining and providing information on interim goal attainment, the evaluation specialist also examines and tries to measure unanticipated consequences of the program. The program may trigger other things to happen, i.e., other than the stated goals, which may or may not be beneficial. Possible spin-off effects of a program should be observed and logged by the program coordinator and measured if possible by the evaluator both during and after the program cycle.

Stage IV: Summative Evaluation. During and after program implementation those concerned with the program's success want to know the extent to which the program achieves its objectives. This determination, called summative evaluation, leads perhaps to the most crucial decision: whether to recycle the program in its implemented form or modify the program in some way to correct deficiencies, or reject the program because it failed to do the job it was intended to achieve. The task of delineating, obtaining and providing information to help make this decision is that of the evaluation specialist.

The evaluator begins his task early in the planning stage where he serves as a technical consultant in goal reduction. He recognizes that if objectives are not clear and operationally defined, the correspondence between measurement and objectives will be equally unclear, and the sound information needed to make the decision on program continuation will not be available. When these conditions prevail, the normal tendency is to continue what may be ineffective programs.

Several other problems are common in deciding on the issue of program continuation. First is the common lack of decision rules that will be applied in interpreting measures of the objectives. These decision rules should be established in the planning stage and agreed upon by the Program Committee and the Change Team. For example, one decision rule for a reading program might be that unless 80% of the participants achieve mastery of the Dolch basic vocabulary words (mastery defined as knowledge of 90% or more of the words), the program will be seen as a failure in meeting this objective.

A second common problem is that of securing valid measures of all objectives. Objectives which describe feelings, attitudes, appreciations, etc., are very difficult to measure and their validity is often challenged by the practitioner. This fact emphasizes the need for the Program Committee to agree upon the nature of the information to be collected before the program begins. If the decision maker does not accept the evidence as valid, he will not use it in deciding upon program continuation.

Third, programs sometimes produce spin-off (unanticipated) effects which may be better and more important than achievement of the original objectives. Similarly, spin-off effects may be so disastrous as to reject a program even if objectives are achieved. This problem underlines the fact that program decision makers must consider a wide range of information in making program recycling decisions.

The fourth problem relates to debugging a program the first time it is implemented (cycled). Many practitioners feel that first time implementation of programs is not really a good test of their effectiveness because they may not have been implemented as planned. Thus, the decision maker may opt for program continuation even when summative evaluation shows the program is not up to expectations. The tough problem is how long this logic should be applied, if at all.

The responsibilities of the evaluation specialist touch each stage of the model. In the goal setting stage, he may conduct or advise on surveys on behalf of SCA's or attempt to explain and interpret data

from the school information system. In the planning stage, he has responsibility for devising the evaluation design. This design includes: statements of (measurable) objectives; criteria for measuring these objectives, i.e., what instruments or observational technique will be used; conditions under which measurements will be made, including time; the decisions rules that will be applied in interpretation of data, e.g., use of absolute or relative standards; instrument administration schedules, etc. The design must also include a schedule of reports including the target audience for each report. Some reports will be directed to the program coordinator, some to the SCA or Program Committee, etc. The design must be approved by the ECT and the Program Committee.

It should be made very clear that the evaluator is not viewed as a program decision maker in any stage of the model. His job is to delineate, obtain and provide information for decision makers. His credentials for influencing decision makers is the quality of information he provides.

The question of whether a program is continued the next year (or for a second cycle) is the problem of the principal and his line officer. The principal should, however, arrive at these decisions from shared input from the Change Team.

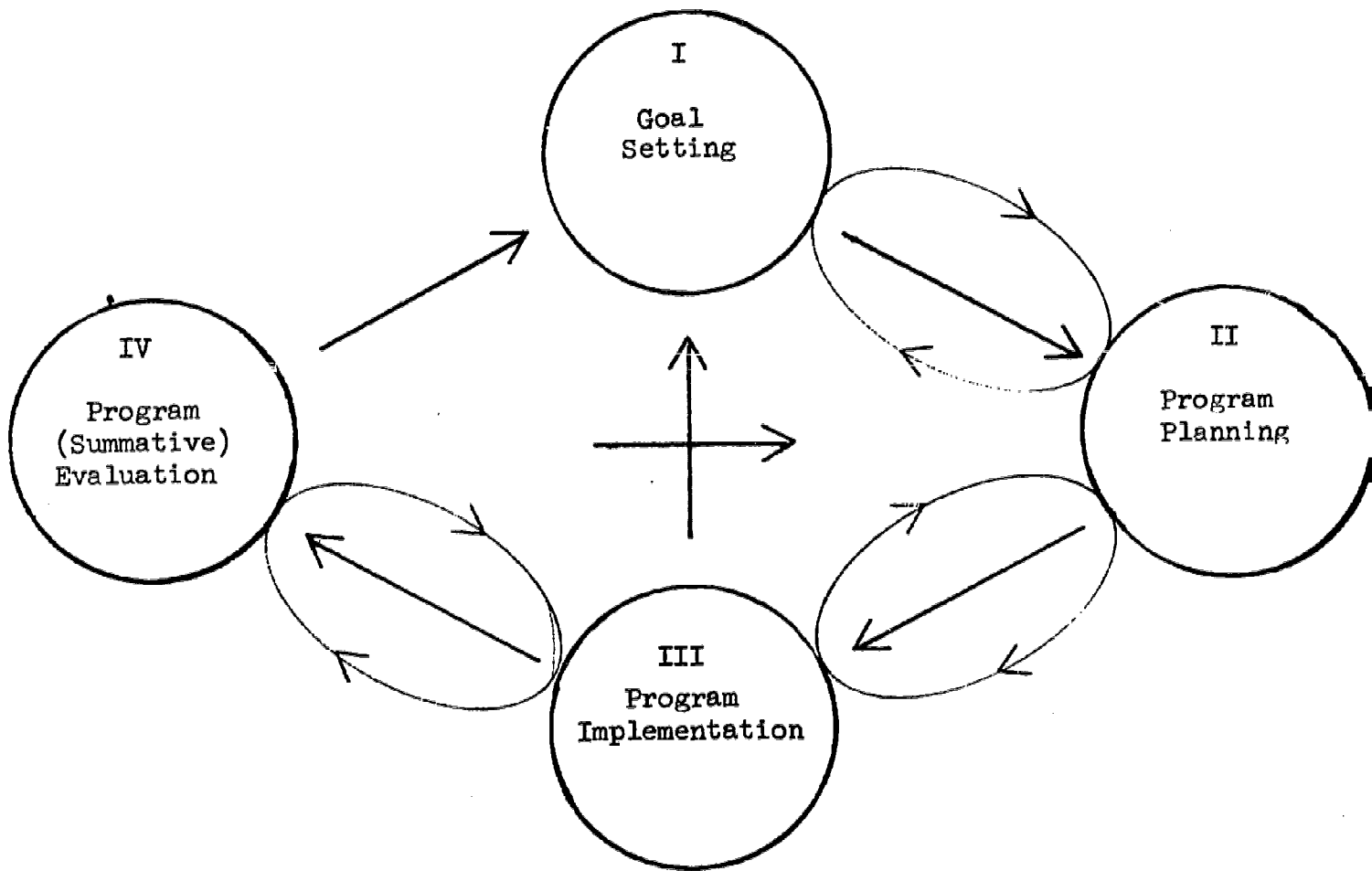
The evaluation specialists must have skills not commonly found on a school staff, such as knowledge of measurement and statistics,

sampling, instrument construction, goal reduction, reporting. In this model, the evaluation specialist reports to the Division of Program Research and Design rather than being school based. The evaluator receives work assignment, training, and performance evaluation from this division although their performance is also evaluated by the school principal(s) for whom they provide service. Evaluators are centrally based in order to enhance their credibility and to provide for economy. Ordinarily, one evaluator will serve several schools.

Interactive Nature of the Four Stages

If this four stage plan is to indeed model reality and have practical application, four fundamental concepts need to be well understood. First, the model requires some recycling loops to prior stages in the program development process. Second, the model does not require each stage to follow in logical succession from goal setting, to planning, to implementation, to summative evaluation. Third, the model could "start" at any one of the four stages, although some backing up may be necessary. Fourth, the model does not necessarily require one stage to occur at a time; two or more can be in process concurrently.

In an attempt to clarify these concepts, consider the following graphic representation of the model. The straight one way arrows connecting each stage represent the normal linear progression of the model. The oval loops between stages depict recycling to a prior stage.



Recycling Loops. Recycling to a prior stage is desirable and usually necessary. To illustrate, suppose that in Stage I, improved reading performance is cited as the priority goal for a given school by the SCA. A two month above-national-norm standard is set as the expected achievement level for eighth graders and this information is passed on to the Stage II Program Committee. The Program Committee studies alternatives and selects a reading program which relies heavily on vocabulary building. But this may not be what the goal setters had

in mind. They may have had reading comprehension in mind, or speed reading. To make sure they are "on track", the planners need to recycle their plans to the SCA for verification. Similarly, the implementors need to communicate with the planners if the plans have to be changed or if clarification of the plan is needed; the evaluator needs to feed back interim data on reading achievement to the implementors. The Change Team is the follow-through agent from one stage to another.

The only place where the recycling loop makes no sense is from Stage I (goal setting) back to Stage IV (summative evaluation). The SCA goal setters have no communication needs with the evaluator after the program has been implemented although they may influence the evaluation design if the whole program is recycled.

Succession of Model Stages. Under ideal conditions, the model moves from Stages I through IV, and then recycles. Exceptions can and should occur. Suppose, for example, the SCA set a standard of two years above national norm for reading achievement. The planners simply may not be able to identify a program which likely will produce such results and so inform the SCA. When a reasonable solution to achieving a goal cannot be identified, the process may never proceed to Stage III but instead recycle between Stages I and II--for lack of solution.

Further, suppose a program gets implemented but is recognized as a bust shortly afterward. When this happens, Stage III never reaches.

completion (and rightly so). Instead, program termination may be communicated directly to the goal setters (see vertical arrow in graphic) for new or modified goals or back to the planners for a different program.

Finally, suppose Stage IV evaluation reveals that objectives were not met, e.g., reading achievement is not up to expectation. Assuming the goal still has priority status, the planners in Stage II would go back to the drawing board (see horizontal arrow) for a better program alternative.

Start Stage of Model. The normal and logical start stage, of course, is goal setting. But a program may be planned (or selected) without explication of the goals to which it is addressed. This is most likely to happen when a school first starts to apply this model. Stage II can be the starting point but looping back to Stage I would be necessary.

Implementing a program without goals in mind or a plan of execution (start Stage III) usually leads to poor or ambiguous results. This often happens when schools jump on a bandwagon without thought of what the band is playing. If the model is applied, goal explication and planning must occur concurrently and as soon as possible before full implementation. The result is usually a patch-up job but is better than nothing.

Concurrence of Stages. All stages of the model may be occurring concurrently. The assessment of needs and the search for new opportunities leading to goals may be viewed as a continuous process even though a priority goal may emerge at a point in time triggering the program cycle. Similarly, the search and evaluation of new programs addressing themselves to established priority goals could be continuous even though one of these programs is being implemented at a given time. The crucial factor that makes one stage move toward the next is the decision to activate.

Some Final Remarks

The success of this model hinges on several key requirements.

1. It must receive top administrative support and possibly Board policy action.
2. There must be inservice training on the model for several groups but especially the Educational Change Team.
3. The principal must be given authority to re-organize some aspects of his school operation. Resources needed for program development, as limited as they might be, must be available.
4. High trust levels must exist between school and central administration, and between school and community.
5. It must be recognized that new institutional roles are required of many personnel including principals, program planners and evaluators. It will take time and some pain before role adjustments are made.
6. Operations manuals should be constructed for each of the four stages. These manuals will serve to "embed" the model in the school system and form the basis for inservice training.

7. A School Information System must be able to supply the data needs for needs assessments and goal setting as well as serving some of the summative evaluation data needs.
8. Costs of implementation need to be worked out. Costs will vary considerably depending upon how many new tasks are assigned to existing positions.

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